Notice No.3

Rules and Regulations for the Classification of Offshore Units, July 2021

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices. Any corrigenda included in the Notice are effective immediately.

Please note that corrigenda amends to paragraphs, Tables and Figures are not shown in their entirety.

Issue date: June 2022

Amendments to	Effective date	IACS/IMO implementation (if applicable)
Part 4, Chapter 6, Section 5	1 July 2022	N/A
Part 5, Chapter 14, Section 1	1 July 2022	1 July 2022
Part 7, Chapter 2, Sections 1, 2 & 4	1 July 2022	1 July 2022

Part 4, Chapter 6
Local Strength

■ *Section 5*
Helicopter landing areas

5.6 Helideck loading

(Part only shown)

5.6.1 The deck gross plate thickness, t, within the landing area is to be not less than:

$t = t_1 + 1{,}5$ mm

where

t_1 = $\frac{\alpha s}{1000\sqrt{k}}$ mm

α = thickness coefficient obtained from *Figure 6.5.1 Tyre print chart*

β = tyre print coefficient used in *Figure 6.5.1 Tyre print chart*

~~$= log_{10}\left(\frac{P_1 k^2}{s^2} \times 10^7\right)$~~

$= log_{10}\left(\frac{P_1 k^2}{s^2} \times 10^7\right)$

s = stiffener spacing, in mm

k = material factor as defined in *Pt 4, Ch 2, 1.2 Steel*

Table 6.5.1 Design load cases for deck stiffening and supporting structure

Load cases	Load				
	Landing area		Supporting structure (*see* Note 1)		
	Area load, in kN/m^2	Helicopter patch load (*see* Note 2)	Self-weight	Wind load, return period in years	Inertia load, return period in years
(1) Helicopter emergency landing	0,5	2,5$P_w f$	W_h	*See Pt 4, Ch 6, 5.5 Load combination 5.5.2*	10
(2) Normal operation	0,5	1,5P_w	W_h	100	10
(3) Helicopter at rest	2,0	P_w	W_h	100	10
Symbols					
~~P_h~~, P_w and f as defined in *Pt 4, Ch 6, 5.6 Helideck loading 5.6.1*					
W_h = structural self-weight of helicopter platform					
NOTES 1. For the design of the supporting structure for helicopter platforms, applicable horizontal load, self-weight, wind load and inertia load are to be added to the landing area loads. Where applicable, thermal loads due to the differences between design and operating temperatures are to be considered for aluminium alloy helidecks. 2. The helicopter is to be so positioned as to produce the most severe loading condition for each structural member under consideration. 3. For the emergency landing and normal operation, helicopter patch load shall be increased by a suitable structural response factor depending upon the natural frequency of the helideck structure. It is recommended that a structural response factor of 1,3 should be used unless further information allows a lower factor to be calculated. For helidecks constructed of aluminium alloys, the value of the structural response factor is to be specially considered.					

Table 6.5.2 Permissible stresses for deck stiffening and supporting structure

Load case (*see Table 6.5.1 Design load cases for deck stiffening and supporting structure*)	Permissible stresses, in N/mm^2			
	Deck secondary structure (beams, longitudinals, deck plating) (*see* Notes 1 and 2)	Primary structure (transverses, girders, pillars, trusses)		All structure
	Bending		Combined bending and axial	Shear
(1) Helicopter emergency landing	~~245/k~~235/k	~~220,5/k~~211,5/k	0,9~~σ~~σ_c	$\frac{\text{Bending}}{\sqrt{3}}$
(2) Normal operation	176/~~k~~k	~~147/k~~153/k	0,65~~σ~~σ_c	
(3) Helicopter at rest	176/~~k~~k	~~147/k~~153/k	0,65~~σ~~σ_c	

Symbols
k = a material factor:
= as defined in *Pt 4, Ch 2, 1.2 Steel* for steel members
= k_a as defined in *Pt 4, Ch 2, 1.3 Aluminium* for aluminium alloy members
~~σ~~σ_c = yield stress, 0,2% proof stress or critical ~~compressive~~ buckling stress, in N/mm^2, whichever is the lesser
NOTES
1. Lower permissible stress levels may be required where helideck girders and stiffening contribute to the overall strength of the unit. Special consideration will be given to such cases.
2. When determining bending stresses in secondary structure, for compliance with the above permissible stresses, 100% end fixity may be assumed.

5.7 Deck stiffening and supporting structure

5.7.4 When the deck is constructed of extruded aluminium alloy sections, the scantlings and connections between structural members will be specially considered on the basis of this Section.

Part 5, Chapter 14
Machinery Piping Systems

■ *Section 1*
General

1.2 Vent pipes protection

1.2.1 Location and arrangement of vent pipes serving fuel oil tanks and lubrication tanks are to be done in such a way to provide protection against ingress of seawater or rain water in case of accidental vent pipes damage.

Part 7, Chapter 2
Hazardous Areas and Ventilation

■ *Section 1*
Hazardous areas – General

1.2 Definitions and categories

1.2.2 Hazardous areas may be divided into Zones 0, 1 and 2, defined as follows:

Zone 0: ~~An area in which an explosive gas-air mixture is continuously present or present for long periods.~~ An area in which ignitable concentrations of flammable gases or vapours are continuously present or present for long periods.

Zone 1: ~~An area in which an explosive gas-air mixture is likely to occur under normal operating conditions.~~ An area in which ignitable concentrations of flammable gases or vapours are likely to occur in normal operation.

Zone 2: ~~An area in which an explosive gas-air mixture is unlikely to occur, and if it occurs, it will only persist for a short period.~~ An area in which ignitable concentrations of flammable gases or vapours are not likely to occur, or in which such a mixture, if it does occur, will only exist for a short time.

Non-hazardous areas are those which are not classified as hazardous according to the above definitions.

■ *Section 2*
Classification of hazardous areas

2.2 Zone 0

(Part only shown)

2.2.1 Areas to be classified as Zone 0 include:

(a) ~~The internal space of a closed tank or pipe containing a flammable liquid or gas, crude oil or active mud, or a space where an oil-gas-air mixture is continuously present, or present for long periods~~ The internal spaces of closed tanks and piping for containing active non-degassed drilling mud, oil that has a closed-cup flashpoint below 60°C or flammable gas and vapour, pipes of the mud-circulating system between the well and the final degassing discharge as well as oil and gas products containment system, e.g. escape gas outlet pipes, or spaces in which an oil-gas-air mixture is continuously present or present for long periods;

■ *Section 4*
Enclosed and semi-enclosed spaces with access to a hazardous area

4.1 General

4.1.4 Where one of the doors specified in *Pt 7, Ch 2, 4.1 General 4.1.3.(c)* is required to be weathertight or watertight and the provision of a self-closing mechanism would be impracticable, consideration will be given to waiving the requirement for this door to be self-closing, provided the door is normally kept closed and is provided with a notice to this effect. Hold-back devices are not to be used on self-closing gastight doors forming hazardous area boundaries.

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